ABSTRACT OF THE DISCLOSURE

A semiconductor workpiece holder for use in processing a semiconductor workpiece includes a workpiece support operatively mounted to support a workpiece in position for processing. A finger assembly is operatively mounted upon the workpiece support and includes a finger tip. The finger assembly is movable between an engaged position in which the finger tip is engaged against the workpiece, and a disengaged position in which the finger tip is moved away from the workpiece. Preferably, at least one electrode forms part of the finger assembly and includes an electrode contact for contacting a surface of said workpiece. At least one protective sheath covers at least some of the electrode contact. According to one aspect of the invention, a sheathed electrode having a sheathed electrode tip is positioned against a semiconductor workpiece surface in a manner engaging the workpiece surface with said sheathed electrode tip. A seal is formed about the periphery of the electrode tip, and with the electrode tip engaging the workpiece, a desired electrical contact is made to the workpiece. Thereafter, the workpiece is exposed to desired semiconductor processing conditions.